

**WE CLAIM:**

Sub A1  
 Claim 1. A method for use in a self-describing file system including at least one server and one disc storage device for access by at least one client including, said method comprising the steps of:

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- a. attaching said client to said file system; and,
  - b. reading a formal description of the file system by said client from said disc storage device,

wherein said client can substantially directly read and write files or blocks of data to and from said disc storage device without requiring further knowledge of said file system.

Claim 2. The method of claim 1 wherein step b. further comprises the step of:

- c. reading enough information to determine the physical block and offset containing a given file's inode given its inode number.

Claim 3. The method of claim 2 wherein step b. further comprises the step of:

- d. reading enough information to determine the block list of a given file given an offset into the file and a length.

20 Claim 4. The method of claim 3 wherein step c. comprises reading the iread algorithm found in a Unix file system.

Claim 5. The method of claim 4 wherein step d. comprises the step of reading the bmap of a Unix file system.

Sub A2  
 Claim 6. The method of claim 5 wherein step a. comprises the steps of:

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- e. sending a mount request; and,
  - f. receiving a mount response.

5            Claim 7.        The method of claim 6 wherein said formal description of the file system read in step b. is saved for future use when a read request or a write request is made by said client.

             Claim 8.        The method of claim 7 wherein said disc storage device is located in a Storage Area Network (SAN).

10           Claim 9.        The method of claim 7 wherein said client is located on said server.

             Claim 10.        The method of claim 1 wherein said reading step b. comprises reading for backup and restore purposes.

20           Claim 11.        A self- describing file system comprising:  
                 disc storage means for storing files and data;  
                 file server means attachable to said disc storage means for accessing said disc storage means;  
                 client means connected to said file server means; and,  
                 formal description obtaining means within said client means for obtaining a formal description of the file system from the disc storage means containing the file system,

                 wherein said client can substantially directly read and write files or blocks of data to and from said disc storage means without requiring further knowledge of said file system.

25           Claim 12.        The system of claim 11 wherein said formal description obtaining means includes means for reading enough information to determine the physical block and offset containing a given file's inode given its inode number.

